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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/803,173
Filing Date: March 09, 2001
Appellant(s): CHENG, CHONG SENG

Warren S. Heit
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 19, 2007 appealing from the Office action
mailed October 18, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The Examiner does not agree with Appellants general characterization of the claimed device as a portable data storage device that functions like a magnetic disk or CD that plugs directly into a computer's USB port. Direct connection without a cable and magnetic disk or CD like capacity/functionality have been rejected by the Examiner as new matter not disclosed in the original specification. Appellants have not provided a concise explanation of the subject matter defined in the independent claim with reference to the specification by page and line number as

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required, because they cannot, as the claimed subject matter is not supported by the specification as originally filed. For example, Appellants do not point to any passage in the specification or drawing to provide support for a unitary portable storage device with an integrated USB plug that plugs directly to a computer without an intervening cable. Nor do Appellants point out where non-removable feature of the claim is supported in the specification.

Appellants characterization of the claimed device as functioning portably like a magnetic disk or CD is also misleading. The passage in the specification page 1, line 24 to page 2, line 11, that Appellants points to support this claim does not mention magnetic disk or CD like functionality at all.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

NEW GROUND(S) OF REJECTION

Claim 22 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No. 7,039,759.

The patent issued on May 2, 2006 from application No. 10/742,644, which is a continuation of application No. 09/803,157 (now Pat. No. 6,880,054) filed on the same day as the instant application and is based on the same specification. Application '644 and its parent were not identified as being related to the instant application. The instant claim could not have been rejected for double patenting because it was significantly different from the claims in the '054 patent or the initial set of claims presented in application '644 (which matured into '759

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patent). However, the prosecution history of '644 application reveals that on November 21, 2005, claim 1 was amended significantly to substantially parallel claim 22 of the instant application which has not been amended since March 21, 2005. Had the Examiner been aware that Appellants were pursuing a claim that is substantially similar to the instant claim in a separate application, a double patent rejection would have been properly made earlier.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6038320	Miller	3-2000
6457099	Gilbert	9-2002
6786417	Kondo et al.	9-2004
6748541	Margarlit et al.	6-2004
6407949	Jha et al.	6-2002
7039759	Cheng et al.	5-2006

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 22 – 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 22, the specification as originally filed does not support the limitation “a USB plug integrated into the unitary portable data storage device without an intervening cable capable of coupling portable data storage device directly to a USB socket on a computer”. Closest support for the limitation can be found in figure 1, element 1, and figure 2, step 20 and their corresponding descriptions in the specifications. However, while the specification discloses a USB plug and that “the plug 1 of the device 10 is plugged into 20 to a USB socket on the computer” (specification page 5, lines 18 – 19), it does not disclose that the USB plug 1 of the device couples **directly** to a USB socket on a computer. Nor does the specification support the limitation “**without an intervening cable.**”

The specification as originally filed does not support the limitation “a USB plug **integrated into the unitary** portable data storage device.” This limitation has been introduced specifically to avoid a prior art reference applied in one of the previous rejections that discloses a two-piece construction of Appellants claimed device. The specification is silent as to whether the plug is integrated and the portable device is of unitary construction.

The specification as originally filed does not support the limitation “said memory being **non-removable** from the unitary portable data storage device”. Again, this limitation has been added specifically to avoid a prior art reference applied in one of the previous rejections that

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discloses Appellants claimed device with removable memory. Whether the memory is non-removable or not is not disclosed in the specification as originally filed.

The specification as originally filed does not support the limitation “and having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD.” While the specification discloses that magnetic disks and CD ROMs are examples of conventional devices, it does not disclose that the claimed non-volatile memory has sufficient capacity to serve as an alternate to a magnetic disk or CD. Capacity of the claimed non-volatile memory is not discussed anywhere in the specification. The specification as originally filed does not support the limitation “in a manner to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD.” Appellants are asked to specifically point out where in the specification these limitations are supported.

2. Claims 22 – 24, and 26 – 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller (US Patent No. 6,038,320).

Miller discloses a unitary portable data storage device (figure 3) comprising:

a USB plug (figure 3, 48) integrated into the unitary portable data storage device without an intervening cable capable of coupling the unitary portable data storage device directly to a USB socket on a computer;

a single interface (figure 3, interface between the plug 48 and the controller 42), said interface allowing the unitary portable data storage device to communicate via the USB protocol and being coupled to the USB plug;

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a memory controller (42); and

a non-volatile solid-state memory (46), said memory being non-removable from the unitary portable data storage device and having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD (Miller's device has sufficient capacity to serve as an alternative to other alternative memories, such as a magnetic disk or CD, that can be used to store encrypted passwords); and

the memory controller being coupled between the interface and the memory to control the flow of data between the memory and the USB plug (figure 3, col. 2 line 59 – col. 4, line7) in a manner to enable the unitary data storage device to serve as an alternative to a magnetic disk or CD.

3. Claims 22 – 24, and 26 – 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Gilbert (US Patent No. 6,457,099).

Gilbert discloses a unitary portable data storage device (figure 2, 100) comprising:

a USB plug integrated into the unitary portable data storage device without an intervening cable capable of coupling the unitary portable data storage device directly to a USB socket on a computer (col. 7, lines 11 – 30, just like Appellants device, Gilbert's device plugs into a computer, see lines 23 – 24);

a single interface, said interface allowing the unitary portable data storage device to communicate via the USB protocol and being coupled to the USB plug (a USB interface is required for the USB embodiment of Gilbert's device) ;

a memory controller (figure 1, 102, 104);

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and a non-volatile solid-state memory (figure 1, 106, 108, 110, 112, see also col. 3, lines 42 – 47 and col. 4, lines 16 – 22), said memory being non-removable from the unitary portable data storage device and having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD (Gilbert's device has sufficient capacity to store applications);

the memory controller being coupled between the interface and the memory to control the flow of data between the memory and the USB plug in a manner to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD.

4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Kondo *et al.* (US Patent No. 6,786,417, hereinafter "Kondo").

Miller discloses all of the limitations of the parent claim as discussed above. However, Miller does not specifically disclose a manually operated switch movable between a first position in which writing of data to the memory is enabled, and a second position in which writing of data to the memory is prevented. On the other hand, Kondo discloses a flash memory device with a manually operated switch movable between a first position in which writing of data to the memory is enabled, and a second position in which writing of data to the memory is prevented (figures 3 and 4, element 6 activates the switch, col. 4, line 65 – line 3).

It would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Kondo before him at the time the invention was made, to use the accidental erasure prevention teachings of the compact portable flash memory card of Kondo in the compact

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portable flash memory card of Miller, in order to prevent accidental erasures of flash memory content (Kondo, col. 1, line 66 – col. 2, line 1).

5. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Kondo.

Gilbert discloses all of the limitations of the parent claim as discussed above. However, Gilbert does not specifically disclose a manually operated switch movable between a first position in which writing of data to the memory is enabled, and a second position in which writing of data to the memory is prevented. On the other hand, Kondo discloses a flash memory device with a manually operated switch movable between a first position in which writing of data to the memory is enabled, and a second position in which writing of data to the memory is prevented (figures 3 and 4, element 6 activates the switch, col. 4, line 65 – line 3).

It would have been obvious to one of ordinary skill in the art, having the teachings of Gilbert and Kondo before him at the time the invention was made, to use the accidental erasure prevention teachings of the compact portable non-volatile memory card of Kondo in the compact portable non-volatile memory card of Miller, in order to prevent accidental erasures of memory content (Kondo, col. 1, line 66 – col. 2, line 1).

6. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Margalit *et al.* (US Patent No. 6,748,541, hereinafter “Margalit”) in view of Jha *et al.* (US Patent No. 6,407,949, hereinafter “Jha”).

Margalit discloses all of the limitations of the parent claim 22 as follows:

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a unitary portable data storage device (figure 1, 10) comprising:

a USB plug (col. 4, line 23) integrated into the unitary portable data storage device without an intervening cable capable of coupling the unitary portable data storage device directly to a USB socket on a computer (figure 5B);

a single interface (figure 1, 40), said interface allowing the unitary portable data storage device to communicate via the USB protocol and being coupled to the USB plug;

a memory controller (30); and

a non-volatile solid-state memory (50 and 70, col. 4, lines 35 – 41), said memory being non-removable from the unitary portable data storage device and having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD (Margalit's device has sufficient capacity to serve as an alternative to other alternative memories, such as a magnetic disk or CD, that can be used to store user data); and

the memory controller being coupled between the interface and the memory (see figure 1) to control the flow of data between the memory and the USB plug in a manner to enable the unitary data storage device to serve as an alternative to a magnetic disk or CD.

However, Margalit does not specifically disclose that the non-volatile solid-state memory is divided into a plurality of zones, one or more of said plurality of zones requiring a unique password for access. On the other hand, Jha discloses these limitations (figure 4).

It would have been obvious to one of ordinary skill in the art, having the teachings of Margalit and Jha before him at the time the invention was made, to use the zoned password protection teachings of the flash memory Jha in the flash memory device of Margalit, in order to

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prevent inadvertent erasures or reprogramming of portions of the flash memory (Jha, col. 11, lines 17 – 19).

New Ground of Rejection

7. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,039,759 in view of Margalit et al. (US Patent No. 6,748,541).

Patented claim 1 claims all of the limitations of the instant claim 22 as shown in the comparison chart:

Patented claim 1	Instant claim 22
A unitary portable data storage device comprising:	A unitary portable data storage device comprising
a universal serial bus (USB) plug integrated into the unitary portable data storage device without an intervening cable capable of coupling the unitary portable data storage device directly to a USB socket of a computer;	a USB plug integrated into the unitary portable data storage device without an intervening cable capable of coupling the unitary portable data storage device directly to a USB socket on a computer;
a single interface coupled to the USB plug, the interface allowing the unitary portable data storage device to communicate via the USB protocol;	a single interface said interface allowing the unitary portable data storage device to communicate via the USB protocol and being coupled to the USB plug;
a non-volatile solid-state memory, the memory having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD; and	a non-volatile solid-state memory, said memory [being non-removable from the unitary portable data storage device and] having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD; and
a memory control device coupled between the	the memory controller being coupled between

interface and the memory to control the flow of data between the memory and the USB plug in a manner to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD and to implement access restriction wherein access to at least a portion of the data in the memory is restricted absent password authentication.	the interface and the memory to control the flow of data between the memory and the USB plug in a manner to enable the unitary data storage device to serve as an alternative to a magnetic disk or CD.
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However, patented claim 1 does not specifically disclose that the memory is non-removable. On the other hand, Magalit discloses a portable USB plug device (figure 1, 10, see also figures 3 and 4) that plugs directly into a USB slot of a computer (figure 5B) with non-removable (see figures 3 and 4, chips are mounted on PCB board which is totally enclosed by 210 and 200) non-volatile memory (see col. 4, lines 33 – 42). It would have been obvious to one of ordinary skill in the art, having the teachings of the patent claim 1 and Magalit before him at the time the invention was made, to make the memory non-removable for a variety of reasons. Devices with non-removable memories are less costly because they don't require mating contacts or chip sockets. They are also more reliable in portable devices because the contact pins are not likely to be dislodged due to vibration or shock.

(10) Response to Argument

Written Description

In order to satisfy the written description requirement, the disclosure as originally filed “must ... convey with reasonable clarity to those skilled in the art that ... [the inventor] was in possession of the invention.” Vas-Cath Inc. v. Mahurkar, 935, F.2d 1555, 1563-64, 19 UPSQ2d 1111, 1117 (Fed. Cir. 1991). One skilled in the art, reading the original disclosure, must

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“immediately discern the limitation at issue” in the claims. Waldemar Link GmbH & Co. v. Osteonics Corp., 32 F.3d at 558, 31 UPSQ2d at 1857.

In this case, the specification fails to convey with reasonable clarity to those skilled in the art that the inventor was in possession of the claimed invention that includes new matter added via amendments. One skilled in the art cannot immediately discern the limitations at issue by reading the original disclosure.

Appellants contend that the specification as originally filed supports the limitation “USB plug...without an intervening cable capable of coupling...directly to a USB socket on a computer.” Appellants argue that the limitation is supported by the portion of the specification that discloses a USB plug that plugs into a USB socket on computer (Appeal Brief, page 7 lines 1 – 5). The Examiner disagrees.

Appellants’ first argument is that at the time of the invention, “USB” was a “well established term” that did not require detailed description in the specification and that such a USB plug **must be plugged directly** into the USB socket on a computer without and intervening cable under the USB specification (Appeal Brief, page 7, lines 7 – 20). In other words, a single sentence in the specification stating that “the plug 1 of the device 10 is plugged into 20 to a USB socket on a computer” (specification, page 5, lines 18 – 19) necessarily teaches direct plugging without an intervening cable. The first problem with this argument is that the specification does not disclose that the claimed device conforms to the USB specification, and if so, which version or what aspect of the specification. The specification does not mention the USB specification at all. The second problem is that, even assuming that a mere mention of USB necessarily invokes

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all of the requirements of the USB specification, the USB specification itself specifies more than one type of plug and socket. There are at least two types of connectors or plugs. There are also mini versions of the connectors that are in common use, such as in digital cameras and other small devices. The third problem is that Appellants themselves distinguished between relationships that are direct and the ones that are not necessarily direct. At page 5 of the specification, line 11, Appellants state that “[t]he device 10 also includes a USB socket 8 that is coupled **directly** to the USB plug 1” to describe the connection between socket 8 and plug 1. Appellants deliberately chose to use the word “directly” to describe a connection without an intervening component. Yet, the word “directly” is conspicuously missing in the connection between plug 1 and a computer’s socket (see specification, page 5, lines 18 – 19). Appellants cannot now claim that by “plugged” they meant “directly plugged” as evidence does not support this claim.

Credibility of Mr. Hyde’s statements, that Appellants rely on to support their argument, is highly questionable as they are directly contradicted by the USB specification itself. In paragraph 17 of the Hyde affidavit, Mr. Hyde states that “an intervening cable between a USB plug and a USB socket (as an extension cable) was not permitted under the USB Specification at the time of the claimed invention.” However, the USB Specification Revision 1.1 (Kim affidavit filed March 21, 2005, page 74) specifically states, in section 6.4.1 Detachable Cable Assembly, that “[f]ull speed devices can utilize the “B” connector. This allows the device to have detachable USB cable.” As to paragraphs 16 – 18 of Kim affidavit that Appellants also rely on to support their argument, they merely state that a USB type-A plug plugs into a type-A socket. They do not establish that Appellants’ specification discloses a USB type-A plug. Nor do they

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prove that Appellants disclosed a computer with a USB type-A socket. In fact, in paragraph 19, professor Kim specifically states that “at the time of the invention, D12 would typically be proximately connected to a USB “B”-type socket rather than a USB “A”-type plug.” (D12 is shown as element 2 in figure 1 of the application). Affidavit submitted by Appellants provides strong evidence that one of ordinary skill in the art would have associated the disclosed plug 1 and socket 8 with USB “B”-type connectors. In the very next sentence, Appellants’ own affiant states that he considers “eliminating the need of the USB “B”-type socket and an intervening cable disclosed in the present application **very innovative**” (Kim affidavit, paragraph 19). This statement presupposes that Appellants have disclosed such an **innovative feature**. However, Appellants have not disclosed that the invention eliminates the need for the USB “B”-type socket. If this was indeed Appellants’ innovation, this feature should have been specifically disclosed and claimed in the original application. By definition, an innovative (i.e., novel and unobvious) patentable feature cannot be something that one of ordinary skill in the art can recognize immediately without specific disclosure.

Appellants’ arguments require one skilled in the art to read the disclosure “the plug 1 of the device 10 is plugged into 20 to a USB socket on a computer” as “the type-A USB plug 1 of the device 10 is directly plugged into 20 to a type-A USB socket on a computer without an intervening cable.” This is simply not a supportable position in light of the USB specification that 1) specifies more than one type of connectors, and 2) specifically allows type-B connections to have detachable cables, and Professor Kim’s affidavit that D12 would typically be proximately connected to a USB B-type socket which strongly indicates that one skilled in the art would associate the claimed device with USB type-B connectors. Professor Kim’s statement

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that he considers the elimination of the B-type connector as being innovative also supports non-disclosure of the claimed device's type-A USB plug plugging directly into a type-A USB socket of a computer as this "innovative feature" of eliminating the need for the USB "B"-type socket would not be immediately apparent to one of ordinary skill in the art because D12 is normally associated with USB type-B connectors according to Professor Kim.

Appellants also contend that the original disclosure supports the underlined portions of the limitation "USB plug integrated into the unitary portable data storage device without an intervening cable...." and "said memory being non-removable...." (Appeal Brief, page 9)

Appellants argue that the limitation is supported because Appellants 1) refer to the device in the specification in a singular form (Appellants characterized this as "device's singular nature" in the Brief) and 2) never mentioned any removable or non-integrated components (Appeal Brief, pages 9 – 10). Again, the Examiner disagrees.

Referring to the claimed device in a singular form and not mentioning any removable components provide no support, on their own, for integrated and unitary nature of the physical construction of the device with non-removable components. The specification is silent as to the physical characteristics of the device. While there are memory devices of unitary construction with integrated connectors and non-removable components, such as some compact flash or SD flash memory cards, the claimed device is not described as one of them. A single functional block diagram and referring to the device in a singular form simply do not convey to one of ordinary skill in the art that the device is to be of unitary construction with an integrated plug and non-removable memory. For example, the disclosure does not state that the memory chip(s) are

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to be soldered onto a printed circuit board. It is well known in the art that integrated circuits, including memory, processor and other control chips, can be mounted on a printed circuit board using sockets, rather than being soldered onto the board. Device designers use chip sockets for a variety of reasons. Socket design allows for easy removal of obsolete or defective chips so that they can be replaced with newer or functional chips without having to throw out the entire device because of one defective chip. It also avoids potential heat damage to sensitive semiconductor chips during soldering process. The disclosure does not state that the memory component should not be mounted using a chip socket. Because there are many physical design alternatives available to one skilled in the art and Appellants' disclosure does not include even a single physical embodiment nor exclude physical design options other than the claimed unitary construction with an integrated plug and non-removable memory, one skilled in the art cannot immediately discern the limitations at issue by reading the original disclosure. Just as a genus does not anticipate its species, a generic disclosure of "a device" does not disclose specific limitations that were added later on.

Appellants also contend that the disclosure supports the limitation "said memory...having sufficient capacity to enable the unitary portable data storage to serve as an alternative to a magnetic disk or CD." Appellants argue that the discussion of certain characteristics of surface based data storage devices, such as a need for a mechanical drive mechanism, bulkiness, and delicate nature because of moving parts, discloses that the claimed device is to have sufficient capacity to serve as an alternative to a magnetic disk or CD. Appellants claim that this discussion unambiguously discloses their intention for the claimed invention to serve as an

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alternative the magnetic disks and CD by clearly conveying that Appellants were in possession of the claimed invention (Appeal Brief, page 13). The Examiner disagrees. If Appellants clearly and unambiguously intended for the invention to have sufficient capacity to serve as an alternative to the magnetic disk or CD as argued, it would have been a simple matter to expressly state the intention in the specification. The specification is unambiguous in its lack of such disclosure.

Appellants' two-paragraph discussion of the background information in the specification focuses on the shortcomings of two types of conventional memory devices. The first type discussed is based on solid-state devices such as ROM or RAM. The second type is based on surface based storage devices such as magnetic or optical disks. About the only intention that can be gleaned from the background section of the specification is that the claimed device may have been intended to be a portable non-volatile storage device that overcomes some of the shortcomings of the two types of storage devices discussed in the background section of the disclosure. The only thing that is unambiguous and clear about the capacity requirements of the claimed device is that it is not discussed at all in the specification.

Appellants' failure to comply with the requirements under 35 U.S.C. 112, second paragraph, by not disclosing what amount or level of capacity would be sufficient to enable the device to serve as an alternative to a magnetic disk or CD, also indicates non disclosure of capacity requirements of the claimed device. If Appellants, at the time of filing, unambiguously intended the device to be an alternative to a magnetic disk or CD as Appellants argue today after the fact, they should have expressed such intentions unambiguously in the specification by

complying with the statutory requirements under 35 U.S.C. 112, first and second paragraphs with a clear discussion of the capacity requirements of the device.

Prior Art – Anticipation

1. U.S. Patent No. 6,038,320 (hereinafter “Miller”)

Appellants assert that Miller’s device is a security key that does not have the capability or capacity to serve as a mass storage device, such as a magnetic disk or CD and that Miller does not anticipate the recited limitations: (1) the memory “having sufficient capacity to enable the unitary portable data storage device to serve as an alternative to a magnetic disk or CD” and (2) the memory controller “to control the flow of data between the memory and the USB plug in a manner to enable the unitary portable data storage device to operate as an alternative to a magnetic disk or CD.”

With respect to the first limitation, Appellants have not disclosed the capacity requirements of the device at all in the specification. Nor have Appellants disclosed what capacity would enable the device to serve as an alternative to a magnetic disk or CD. Claim 22 does not require the device to serve as a mass storage device as the term “mass storage” does not appear in the claim. The claim merely requires that the device has “sufficient capacity to enable the device to serve as an alternative to a magnetic disk or CD” without specifying what capacity would be sufficient for what purpose. Therefore, any capacity that is sufficient to serve any useful purpose would meet this claimed limitation. Miller’s device is a portable data storage device that stores an encrypted password. It has enough capacity to enable it to serve as an alternative to a magnetic disk or CD for storing an encrypted password.

Appellants also argue that Miller cannot send back the “user’s data” in its original condition received and stored into the device, and that a skilled artisan would understand that this inability to send back “user’s data” is inconsistent with what is required in a mass-storage device. This argument does not relate to limitations that are in the claims. The claim does not require that “user’s data” received and stored be sent back to the user in its original condition. Nor does the claim relate to any mass-storage device, as a mass-storage device is not claimed.

With respect to the second limitation allegedly not taught, Appellants’ assertion that Miller fails to disclose a memory controller coupled to the memory capable of controlling data flow to and from the memory because Miller controller is not a mass storage controller is not persuasive. Again, Appellants’ argument is based on limitations that are not in the claim. To reiterate, there is no limitation “mass storage device” or “mass storage controller” in the claim. The claim does not require that the claimed “memory controller” be a mass storage controller as argued. The claim merely requires that the controller “control[s] the flow of data between the memory and the USB plug in a manner to enable the unitary data storage device to serve as an alternative to a magnetic disk or CD.” Miller clearly discloses a controller that controls flow of password data in and out of the device to enable the device to serve as an alternative to a magnetic disk or CD that stores passwords.

2. U.S. Patent No. 6,457,099 (hereinafter “Gilbert”)

The Examiner concedes that if Appellants’ specification does not support direct plugging of a USB plug without an intervening cable as discussed above, Gilbert reference also fails to meet these limitations as well because the level of Gilbert’s disclosure in this regard is

comparable to that of Appellants'. However, the Examiner maintained this rejection because of Appellants' insistence that the limitations are supported by the original specification. If Appellants are correct and the original specification does support these limitations, it is the Examiner's opinion that Gilbert also discloses these limitations because Gilbert discloses as much as Appellants do in this regard and the Examiner can provide full support for these limitations using Appellants' arguments to support their contention that the limitations are supported by the specification. Appellants' assertion that Gilbert does not disclose a USB plug that plugs in directly without an intervening cable is an implicit admission that Appellants have not disclosed these claimed features.

Appellants' main argument is that Gilbert does not specifically show a USB plug as Appellants do. However, according to Appellants' own arguments in the Appeal Brief, a USB plug is disclosed in Gilbert. Appellants also assert that 1) an unspecified computer's USB connector is an "A"-type USB socket, and 2) the USB specification did not permit an intervening cable between a USB plug and a USB socket (Appeal Brief, page 8). Appellants do not dispute that Gilbert discloses a USB connection between an external PDAC and a host computer and that "a user can simply plug the external PDAC [100] into any host computer." An act of plugging requires a plug and a socket. According to Appellants' own arguments, the only way that an external PDAC can simply be plugged into a host computer is with an USB type-"A" plug which must be part of the external PDAC because an intervening cable is not allowed and a computer's USB connector is a type-A socket.

Appellants assert that "one skilled in the art can only understand that the Gilbert device includes a USB type-B socket, which requires a USB cable with a type-B plug at one end and a

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type-A plug at the other in order to “plug into” a host computer” (Appeal Brief, page 17, first paragraph, last sentence). It is not clear to the Examiner how Appellants arrived at the conclusions that the Gilbert’s device must include a USB type-B socket while Appellants’ claimed device must include a USB type-A plug when the claimed device uses D12 which is used by one skilled in the art with type-B connectors and Gilbert does not disclose the use of a chip that is associated with type-B connectors. Appellants have not offered factual evidence or well reasoned logical arguments to support such inconsistent conclusions.

Appellants also argue that “Gilbert does not teach a portable storage device capable of serving as an alternative to a magnetic disk or CD like the present invention.” The Examiner notes that the claims do not require the storage device to serve as an alternative to a magnetic disk or CD. The claims only require that the device 1) has **sufficient capacity to enable** the device to serve as an alternative to a magnetic disk or CD and 2) **control the flow of data** between the memory and the USB plug **in a manner to enable** the device to serve as an alternative to a magnetic disk or CD. Appellants admit that Gilbert teaches a device that stores software application(s) and do not dispute that this is sufficient capacity to enable the PDAC to serve as an alternative to a magnetic disk or CD. Appellants also failed to dispute that Gilbert’s device controls the flow of data between the memory and the USB plug. As Appellants admitted, Gilbert teaches a PDAC that executes software applications stored in the PDAC. At a minimum Gilbert’s PDAC has sufficient capacity to enable it to serve as a disk that stores application software. The PDAC also interacts with the host computer exchanging commands and data. This requires PDAC to control the flow of data between its memory and the plug through which it connects to the host computer.

Prior Art - Obviousness

Appellants argue that “a skilled artisan will have no reason to increase the Miller device’s memory capacity to the level of a mass-storage device capable of serving as an alternative to a magnetic disk or CD” (Appeal Brief, pages 18 – 19). This is not a proper argument that relates to rejections under obviousness as the argued “feature” is anticipated by Miller. Miller’s device already has sufficient capacity to enable it to serve as a magnetic disk or CD for storage of passwords. Similarly, Appellants argue that Gilbert’s teachings that anticipate the claimed device are not obvious allegedly because Gilbert’s device does not have “fundamental functionality of a mass-storage device” which is not a claimed limitation (Appeal Brief, page 20). Accordingly, Appellants have failed to overcome the rejections of claim 25 by failing to dispute the limitation found to be obvious.

With respect to Margalit reference, while claim 22 has not been expressly identified as having been anticipated, rejection of claim 29 explicitly recites all of the limitations of the parent claim 22 and maps how Margalit anticipates every limitation in claim 22. Appellants argue that Margalit’s device is “analogous to a memory smart card” (Appeal Brief, page 21). Appellants further allege that “the amount of information on a memory smart card is very small (up to only 1 KB, as opposed to a magnetic disk’s 1.44 MB, or 1,440 KB)” and therefore does not have sufficient capacity to serve as an alternative to a magnetic disk or CD. The Examiner acknowledges that there may be memory smart cards with memory capacity of 1KB or less and that there are magnetic floppy disks with 1.44 MB of storage capacity. However, it is not clear

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to the Examiner how this proves that smart cards, other than one specific smart card that may be known to Appellants to have up to only 1 KB of memory, have insufficient capacity to enable them to serve as alternatives to all magnetic disks for all purposes. Appellants have not disclosed that the claimed device is to be used as an alternative to a magnetic disk or CD. Nor have they disclosed what capacity is sufficient to enable to serve as an alternative to a magnetic disk or CD and for what purpose. Magnetic disks come in all shapes, sizes and densities, including a 3 ½ inch double density floppy disk with a rigid casing having 1.44 MB of memory capacity, and a variety of 8 and 5 ¼ inch flexible floppy disks with differing densities and sector sizes that have much smaller memory capacity than 1.44 MB. The above mentioned floppy disks represent only one specific type of magnetic disks popularly used with one specific type of computers – personal computers, and is only a small sampling of the variety of magnetic disks used with computers in general. The Examiner also notes that Margalit uses the term “a memory smart card” in a generic sense (device having memory and processing capability) by using small letters throughout. In contrast, Mr. Hyde’s affidavit refers to a “Smart Card” with capital letters indicating that he is referring to a particular product or a family of products which probably come with a limited amount of memory with the upper limit of 1 KB of capacity (Hyde Affidavit, paragraph 21). Appellants’ numeric comparison between one possible capacity of one particular Smart Card and a capacity of one specific type of magnetic disk, which is larger than other well known disks of the same type, does not establish that Margalit’s device does not have enough capacity to enable it to serve as an alternative to a magnetic disk as claimed. Again, Appellants have not disclosed what memory capacity is enough to enable the device to serve as an alternative to a magnetic disk.

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Appellants also assert that Margalit uses a component (CY7C63001A) that operates at 1.5 Megabits per second, which Appellants allege is low speed, and therefore can only handle small amount of data and is unfit to serve in a mass-storage device (Appeal Brief, page 21). While the Examiner notes again that Appellants have not claimed a mass storage device, a quick calculation highlights the unreasonableness of Appellants' argument. According to the figures provided by Appellants it would take about 8 seconds $((1.44 \text{ MB} \times 8 \text{ bits/byte}) / 1.5 \text{ Mbps})$ to transfer enough data to fill the entire 1.44 MB floppy disk which Appellants regard as having sufficient capacity. Apparently, this is too slow as to be unfit for Appellants' undisclosed purposes.

Because Appellants arguments against the anticipation of claim 22 by Margalit are based on specific data points selected by Appellants and Appellants assertion is unreasonable even using data points selected by Appellants they are not persuasive. Because Appellants' argument regarding the combination of Margalit and Jha is based on the same faulty and unreasonable assertion, Appellants have not overcome the rejection of claim 29.

Secondary Considerations

Secondary considerations are only relevant for determination of obviousness. Appellants discuss secondary considerations such as long-felt need, commercial success, and copying by others. The Examiner has not fully assessed the evidentiary value of the affidavits because it was unnecessary as none of the statements in the affidavits address the issues of 1) having a manual switch and 2) a unique password to access a zones in the memory, which are the only limitations found to be obvious. Moreover, it is not clear to the Examiner which limitations are

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addresses by the affidavits. For example, it is not clear to the Examiner how “the long-felt need for greater capacity storage devices” is solved by the claimed device as the claimed device does not claim a large capacity storage device. Likewise, the alleged commercial success, in which the affiant seems to be relying on statements from someone else, is supposed to be “[b]ecause of all of its features.” It is also not clear to the Examiner what the statement means and how the affiant was able determined this. Does the statement mean that if the device used a memory chip socket to have removable memory chips, the device would not have been successful, even though the end users would not even be aware of this feature?

Because none of the statements in the affidavits address the claimed limitations found to be obvious, Appellants have failed to overcome the prima facie case of obviousness presented in the last final action.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

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For the above reasons, it is believed that the rejections should be sustained.

This examiner's answer contains a new ground of rejection set forth in section (9) above. Accordingly, appellant must within **TWO MONTHS** from the date of this answer exercise one of the following two options to avoid *sua sponte* **dismissal of the appeal** as to the claims subject to the new ground of rejection:

(1) **Reopen prosecution.** Request that prosecution be reopened before the primary examiner by filing a reply under 37 CFR 1.111 with or without amendment, affidavit or other evidence. Any amendment, affidavit or other evidence must be relevant to the new grounds of rejection. A request that complies with 37 CFR 41.39(b)(1) will be entered and considered. Any request that prosecution be reopened will be treated as a request to withdraw the appeal.

(2) **Maintain appeal.** Request that the appeal be maintained by filing a reply brief as set forth in 37 CFR 41.41. Such a reply brief must address each new ground of rejection as set forth in 37 CFR 41.37(c)(1)(vii) and should be in compliance with the other requirements of 37 CFR 41.37(c). If a reply brief filed pursuant to 37 CFR 41.39(b)(2) is accompanied by any amendment, affidavit or other evidence, it shall be treated as a request that prosecution be reopened before the primary examiner under 37 CFR 41.39(b)(1).

Extensions of time under 37 CFR 1.136(a) are not applicable to the TWO MONTH time period set forth above. See 37 CFR 1.136(b) for extensions of time to reply for patent applications and 37 CFR 1.550(c) for extensions of time to reply for ex parte reexamination proceedings.

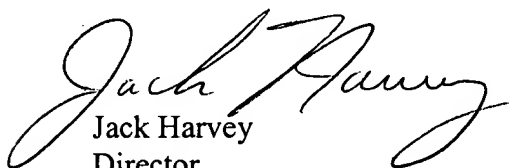
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Respectfully submitted,



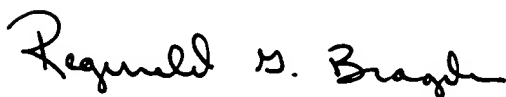
Woo H. Choi
Primary Examiner
GAU 2189

A Technology Center Director or designee must personally approve the new ground(s) of rejection set forth in section (9) above by signing below:



Jack Harvey
Director
Technology Center 2100

Conferees:



Reginald Bragdon
Supervisory Patent Examiner
GAU 2189



Mano Padmanabhan
TQAS
Technology Center 2100